CLAIMS

What is claimed is:

1. A method for determining a rate of flow of a solution through an assay device, wherein said assay device comprises a reaction chamber and at least one diagnostic lane, comprising the steps of:

(a) providing a first member of a binding pair (MBP) in said reaction chamber and a second MBP bound to a solid phase in said diagnostic lane;

wherein said first MBP comprises a label;

wherein said first MBP and said second MBP do not appreciably bind to any assay reagents in said assay device;

wherein said first MBP and said second MBP have specific binding affinity for one another;

(b) detecting a signal in said diagnostic lane, wherein said signal is generated from said label; and

(c) determining said rate of flow of liquid through said assay device from said reaction chamber through said diagnostic lane from the amount of said signal in said diagnostic lane.

2. The method of claim 1, comprising the step of correcting an assay measurement by utilizing said signal.

3. The method of claim 1, wherein said first MBP and said second MBP are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

4. The method of claim 1, wherein said assay reagents are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

5. The method of claim 1, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

6. An apparatus for determining a rate of flow of a solution, comprising:

(a) an assay device including a reaction chamber and at least one diagnostic lane; wherein a first member of a binding pair (MBP) having a label is provided in said reaction chamber; wherein a second MBP is bound to a solid phase in said diagnostic lane;

(b) an optical component for detecting a signal generated from said label; and

(c) a signal processor for determining said rate of flow of liquid from the amount of said signal in said diagnostic lane;

wherein said first MBP and said second MBP do not appreciably bind to any assay reagents in said assay device; and

wherein said first MBP and said second MBP have specific binding affinity for one another.

7. A kit for determining a rate of flow of a solution, comprising:

(a) at least one of a Food and Drug Administration label and a set of instructions;

(b) an apparatus comprising:

(i) an assay device including a reaction chamber and at least one diagnostic lane; wherein a first member of a binding pair (MBP) having a label is provided in said reaction chamber; wherein a second MBP is bound to a solid phase in said diagnostic lane;

(ii) an optical component for detecting a signal generated from said label; and

(iii) a signal processor for determining said rate of flow of

liquid from the amount of said signal in said diagnostic lane;

wherein said first MBP and said second MBP do not appreciably bind to any assay reagents in said assay device; and

wherein said first MBP and said second MBP have specific binding affinity for one another.

8. A method for determining environmental conditions in an assay device during an assay,

wherein said assay device comprises a reaction chamber and at least one diagnostic lane;

wherein said reaction chamber comprises a first MBP and a second MBP arranged to form a solution with a test sample;

wherein said first MBP comprises a label;

wherein said second MBP comprises an affinity tag;

wherein said diagnostic lane comprises an affinity tag partner (ATP);

wherein said ATP has specific binding affinity to said affinity tag;

wherein said first MBP, said second MBP, said ATP, and said affinity tag do not appreciably bind to any assay reagents in said assay device;

wherein said first MBP and said second MBP have specific binding affinity for one another;

wherein said method comprises the steps of:

(a) detecting a signal in said diagnostic lane, wherein said signal is generated from said label;

wherein said signal is detected at a location in a position wherein said ATP is located; and

(b) determining said environmental conditions in said assay device during assay, wherein said environmental conditions are related to the amount of said signal in said diagnostic lane.

9. The method of claim 8, comprising the step of correcting an assay

measurement by utilizing said signal.

10. The method of claim 8, wherein said first MBP and said second MBP are associated with at least one of a lid and base of said reaction chamber.

11. The method of claim 8, wherein said ATP is associated with a solid support in said diagnostic lane.

12. The method of claim 8, comprising the step of introducing said second MBP and said ATP to said reaction chamber;

wherein said ATP comprises a second affinity tag;

wherein said diagnostic lane comprises a second ATP;

wherein said second ATP has specific binding affinity for said second affinity tag; and

wherein said second ATP and said second affinity tag do not appreciably bind to said assay reagents.

13. The method of claim 8, wherein said first MBP and said second MBP are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

14. The method of claim 8, wherein said assay reagents are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

15. The method of claim 8, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

16. An apparatus for determining environmental conditions in an assay device during an assay, comprising:

(a) said assay device; wherein said assay device includes

(i) a reaction chamber comprising a first MBP having a label and a second MBP having an affinity tag arranged to form a solution with a test sample;

(ii) at least one diagnostic lane having an affinity tag partner (ATP);

(b) an optical component for detecting a signal generated from said label; and

(c) a signal processor for determining said environmental conditions in said assay device during assay, wherein said environmental conditions are related to an amount of said signal in said diagnostic lane;

wherein said ATP has specific binding affinity to said affinity tag;

wherein said first MBP, said second MBP, said ATP, and said affinity tag do not appreciably bind to any assay reagents in said assay device; and

wherein said first MBP and said second MBP have specific binding affinity for one another.

17. A kit for determining environmental conditions in an assay device during an assay, comprising:

(a) at least one of a Food and Drug Administration Label and a set of instructions;

(b) an apparatus, comprising:

(i) said assay device; wherein said assay device includes

(a) a reaction chamber comprising a first MBP having a label and a second MBP having an affinity tag arranged to form a solution with a test sample;

(b) at least one diagnostic lane having an affinity tag partner (ATP);

(ii) an optical component for detecting a signal generated from said label; and

(iii) a signal processor for determining said environmental conditions in said assay device during assay, wherein said environmental conditions are related to an amount of said signal in said diagnostic lane;

wherein said ATP has specific binding affinity to said affinity tag;

wherein said first MBP, said second MBP, said ATP, and said affinity tag do not appreciably bind to any assay reagents in said assay device; and

wherein said first MBP and said second MBP have specific binding affinity for one another.

18. A method for measuring progress and time of completion for an assay in an assay device, wherein said assay device comprises a reaction chamber and at least one diagnostic lane;

comprising the steps of:

(a) providing a label in said reaction chamber; wherein said label does not appreciably bind to any assay reagents in said assay device;

(b) detecting a signal in at least one discrete zone of said diagnostic lane, wherein said signal is generated from said label; and

(c) determining said progress and time of completion of said assay in said assay device from at least one of:

(i) a rate of change of the amount of said signal; and

(ii) an absolute amount of said signal.

19. The method of claim 18, comprising the step of correcting an assay measurement by utilizing said signal.

20. The method of claim 18, wherein said label is linked to a MBP.

21. The method of claim 18, wherein the derivative of said rate of change

of the amount of said signal is determined.

22. The method of claim 18, wherein said rate of change is a negative rate of change of the amount of said signal.

23. The method of claim 18, wherein said absolute amount of said signal is averaged.

24. The method of claim 20, wherein said MBP is selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

25. The method of claim 18, wherein said assay reagents are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

26. The method of claim 18, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

27. An apparatus for measuring progress and time of completion for an assay in an assay device, comprising:

(a) said assay device including a reaction chamber and at least one diagnostic lane; wherein a label is provided in said reaction chamber;

(b) an optical component for detecting a signal generated from said label in at least one discrete zone of said diagnostic lane; and

(c) a signal processor for determining said progress and time of completion of said assay in said assay device from at least one of:

(i) a rate of change of the amount of said signal; and

(ii) an absolute amount of said signal;

wherein said label does not appreciably bind to any assay reagents in said assay device.

28. A kit for measuring progress and time of completion for an assay in an assay device, comprising:

(a) at least one of a Food and Drug Administration Label and a set of instructions;

(b) an apparatus, comprising:

(i) said assay device including a reaction chamber and at least one diagnostic lane; wherein a label is provided in said diagnostic lane;

(ii) an optical component for detecting a signal generated from said label in at least one discrete zone of said diagnostic lane; and

(iii) a signal processor for determining said progress and time of completion of said assay in said assay device from at least one of:

(a) a rate of change of the amount of said signal; and

(b) an absolute amount of said signal;

wherein said label does not appreciably bind to any assay reagents in said assay device.

29. A method for determining deviant assay results in an assay device, wherein said assay device comprises a reaction chamber and one or more diagnostic lanes;

comprising the steps of:

(a) providing a label in said reaction chamber; wherein said label does not appreciably bind to any assay reagents in said assay device;

(b) detecting an assay signal (AS) and an independent assay control signal (IACS) in at least two discrete zones in one or more diagnostic lanes, wherein said signal is generated by said label; and

(c) determining said deviant assay result in said assay device by comparing a shape of said AS with a shape of said IACS.

30. The method of claim 29, comprising the step of correcting an assay measurement by utilizing said signal.

31. The method of claim 29, wherein said label is linked to a MBP.

32. The method of claim 32, wherein said MBP is selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

33. The method of claim 29, wherein said assay reagents are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

34. The method of claim 29, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

35. An apparatus for determining deviant assay results in an assay device, comprising:

(a) said assay device, including a reaction chamber and at last one or more diagnostic lanes; wherein a label is provided in said reaction chamber;

(b) an optical component for detecting an assay signal (AS) and an independent assay control signal (IACS) in at least two discrete zones in one or more diagnostic lanes, wherein said signal is generated by said label; and

(c) a signal processor for determining said deviant assay result in said assay device by comparing a shape of said AS with a shape of said IACS;

wherein said label does not appreciably bind to any assay reagents in said assay device.

36. A kit for determining deviant assay results in an assay device, comprising:

(a) at least one of a Food and Drug Administration Label and a set of instructions;

(b) an apparatus, comprising:

(i) said assay device, including a reaction chamber and at last one or more diagnostic lanes; wherein a label is provided in said reaction chamber;

(ii) an optical component for detecting an assay signal (AS) and an independent assay control signal (IACS) in at least two discrete zones in one or more diagnostic lanes, wherein said signal is generated by said label; and

(iii) a signal processor for determining said deviant assay result in said assay device by comparing a shape of said AS with a shape of said IACS;

wherein said label does not appreciably bind to any assay reagents in said assay device.

37. A method for smoothing assay signal determinations in an assay device, wherein said assay device comprises a reaction chamber and at least one diagnostic lane;

comprising the steps of:

(a) providing a label in said reaction chamber; wherein said label does not appreciably bind to any assay reagents in said assay device;

(b) detecting said signal in said diagnostic lane, wherein said signal is generated from said label; and

(c) smoothing said signal.

38. The method of claim 37, comprising the step of correcting an assay measurement by utilizing said signal.

39. The method of claim 37, wherein said label is linked to a first MBP.

40. The method of claim 39, wherein said first MBP is selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

41. The method of claim 37, wherein said assay reagents are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

42. The method of claim 37, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

43. The method of claim 39, comprising the step of providing a second MBP; wherein said second MBP is located in said diagnostic lane;

wherein said first MBP and said second MBP have specific binding affinity for one another; and

wherein said second MBP does not appreciably bind to any assay reagents in said assay device.

44. The method of claim 39, comprising the step of providing a second MBP; wherein said second MBP is introduced to said reaction chamber;

wherein said first MBP and said second MBP have specific binding affinity for one another;

wherein said second MBP does not appreciably bind to any assay

reagents in said assay device;

wherein said second MBP comprises an affinity tag;

wherein said diagnostic lane comprises an affinity tag partner (ATP);

wherein said ATP has specific binding affinity to said affinity tag;

wherein said second MBP, said ATP, and said affinity tag do not appreciably bind to any assay reagents in said assay device; and

wherein said first MBP and said second MBP have specific binding affinity for one another.

45. The method of claim 39, comprising the step of providing a second MBP and a first affinity tag partner (ATP) to said reaction chamber;

wherein said first MBP and said second MBP have specific binding affinity for one another;

wherein said second MBP does not appreciably bind to any assay reagents in said assay device;

wherein said second MBP comprises a first affinity tag;

wherein said first ATP has specific binding affinity to said first affinity tag;

wherein said first ATP comprises a second affinity tag;

wherein said diagnostic lane comprises a second ATP;

wherein said second ATP has specific binding affinity for said second affinity tag; and

wherein said second MBP, said first ATP, said second ATP, said first affinity tag, and said second affinity tag do not appreciably bind to any assay reagents in said assay device.

46. An apparatus for smoothing assay signal determinations in an assay device, comprising:

(a) said assay device, including a reaction chamber and at least one diagnostic lane; wherein a label is provided in said reaction chamber;

(b) an optical component for detecting said signal in said diagnostic lane, wherein said signal is generated from said label; and

(c) a signal processor for smoothing said signal;

wherein said label does not appreciably bind to any assay reagents in said assay device.

47. A kit for smoothing assay signal determinations in an assay device, comprising:

(a) at least one of a Food and Drug Administration Label and a set of instructions;

(b) an apparatus, comprising:

(i) said assay device, including a reaction chamber and at least one diagnostic lane; wherein a label is provided in said reaction chamber;

(ii) an optical component for detecting said signal in said diagnostic lane, wherein said signal is generated from said label; and

(iii) a signal processor for smoothing said signal;

wherein said label does not appreciably bind to any assay reagents in said assay device.

48. A method for verifying a location of a detection zone in an assay device, wherein said assay device comprises a reaction chamber and at least one diagnostic lane;

comprising the steps of:

(a) providing a label in said reaction chamber; wherein said label does not appreciably bind to any assay reagents in said assay device;

(b) measuring for a signal in at least one discrete zone of said diagnostic lane, wherein said signal is generated by said label; and

(c) verifying said location of said detection zone by a detection of said signal in said discrete zone of said diagnostic lane.

49. The method of claim 48, comprising the step of correcting an assay measurement by utilizing said signal.

50. The method of claim 48, wherein said label is linked to an MBP.

51. The method of claim 50, wherein said MBP is selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

52. The method of claim 48, wherein said assay reagents are selected from the group consisting of binding protein, antibody, antibody fragment, protein, peptide, and organic molecule.

53. The method of claim 48, wherein said label is selected from the group of molecules consisting of dye, fluorescence emitting dye, chemiluminescence emitting dye, infrared emitting dye, colloidal sol, molecule that generates an electrical and/or magnetic signal, and enzyme.

54. An apparatus for verifying a location of a detection zone in an assay device, comprising:

(a) said assay device including a reaction chamber and at least one diagnostic lane; wherein a label is provided in said reaction chamber;

(b) an optical component for detecting a signal generated from said label in at least one discrete zone of said diagnostic lane;

(c) a signal processor for determining said location of said detection zone by a detection of said signal in said discrete zone of said diagnostic lane;

wherein said label does not appreciably bind to any assay reagents in said assay device.

55. A kit for verifying a location of a detection zone in an assay device, comprising:

(a) at least one of a Food and Drug Administration Label and a set of instructions;

(b) an apparatus, comprising:

(i) said assay device including a reaction chamber and at least one diagnostic lane; wherein a label is provided in said reaction chamber;

(ii) an optical component for detecting a signal generated from said label in at least one discrete zone of said diagnostic lane;

(iii) a signal processor for determining said location of said detection zone by a detection of said signal in said discrete zone of said diagnostic lane;

wherein said label does not appreciably bind to any assay reagents in said assay device.

56. A method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a difference between each of said IAC_j and a mean value (IAC_{jave}) of multiple IAC_j measurements (IAC_{ji});

(c) determining a product by multiplying each of said difference of step (b) by a constant (β_j);

(d) determining a sum of every j said product; and

(e) subtracting said sum from said T_m.

57. The method of claim 56, wherein each of said β_j is determined by a matrix function comprising each of said δT and each of said δIAC_j.

58. The method of claim 56, wherein each of said β_j is determined from a

slope of a linear regression of a plot, where the plot is differences (δT_i) between multiple assay result measurements (T_i) and a mean value of T_i (T_{ave}) versus differences between said IAC_{ji} and said IAC_{jave}.

59. The method of claim 56, wherein at least one of said IAC_j is said signal of claim 1 or determined from said signal of claim 1.

60. The method of claim 56, wherein at least one of said IAC_j is said signal of claim 8 or is determined from said signal of claim 8.

61. The method of claim 56, wherein at least one of said IAC_j is said rate of change of the amount of said signal of claim 18 or is determined from said rate of change of the amount of said signal of claim 18.

62. The method of claim 56, wherein at least one of said IAC_j is said absolute amount of said signal of claim 18 or is determined from said absolute amount of said signal of claim 18.

63. The method of claim 56, wherein at least one of said IAC_j is said signal of claim 29 or is determined from said signal of claim 29.

✓64. A computer programmable medium embodying a program of instructions for causing a processor to perform a method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a difference between each of said IAC_j and a mean value (IAC_{jave}) of multiple IAC_j measurements (IAC_{ji});

(c) determining a product by multiplying each of said difference of step (b) by a constant (β_j);

(d) determining a sum of every j said product; and

(e) subtracting said sum from said T_m.

65. In an apparatus, a method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a difference between each of said IAC_j and a mean value (IAC_{jave}) of multiple IAC_j measurements (IAC_{ji});

(c) determining a product by multiplying each of said difference of step (b) by a constant (β_j);

(d) determining a sum of every j said product; and

(e) subtracting said sum from said T_m.

66. A method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a difference (δIAC_j) between each of said IAC_j and a mean value (IAC_{jave}) of multiple IAC_j measurements (IAC_{ji});

(c) determining a product by multiplying each of said difference of step (b) by a constant (Γ_j);

(d) determining a sum of the integer 1 and every j said product; and

(e) determining a quotient between said T_m and said sum.

67. The method of claim 66, wherein each of said Γ_j is a slope of a linear regression of a plot, wherein said plot is multiple β_j determinations versus multiple mean values (T_{ave}) of T_i .

68. The method of claim 66, wherein each of said β_j is determined by a

matrix function comprising each of said δT and each of said δIAC_j .

69. The method of claim 66, wherein each of said β_j is determined from a slope of a linear regression of a plot, wherein said plot is differences (δT_i) between multiple assay result measurements (T_i) and a mean value of T_i (T_{ave}) versus differences between said IAC_{ji} and said IAC_{jave}.

70. The method of claim 66, wherein at least one of said IAC_j is said signal of claim 1 or determined from said signal of claim 1.

71. The method of claim 66, wherein at least one of said IAC_j is said signal of claim 8 or is determined from said signal of claim 8.

72. The method of claim 66, wherein at least one of said IAC_j is said rate of change of the amount of said signal of claim 18 or is determined from said rate of change of the amount of said signal of claim 18.

73. The method of claim 66, wherein at least one of said IAC_j is said absolute amount of said signal of claim 18 or is determined from said absolute amount of said signal of claim 18.

74. The method of claim 66, wherein at least one of said IAC_j is said signal of claim 29 or is determined from said signal of claim 29.

75. A computer programmable medium embodying a program of instructions for causing a processor to perform a method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a difference (δIAC_j) between each of said IAC_j and

a mean value (IAC_{jave}) of multiple IAC_j measurements (IAC_{ji});

(c) determining a product by multiplying each of said difference of step (b) by a constant (Γ_j);

(d) determining a sum of the integer 1 and every j said product; and

(e) determining a quotient between said T_m and said sum.

76. In an apparatus, a method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a difference (δIAC_j) between each of said IAC_j and a mean value (IAC_{jave}) of multiple IAC_j measurements (IAC_{ji});

(c) determining a product by multiplying each of said difference of step (b) by a constant (Γ_j);

(d) determining a sum of the integer 1 and every j said product; and

(e) determining a quotient between said T_m and said sum.

77. A method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each of said IAC_j in an assay device;

(b) determining a function of each of said IAC_j;

(c) determining a sum of the integer 1 and each of said function; and

(d) determining a quotient between T_m and said sum.

78. The method of claim 77, wherein at least one of said IAC_j is said signal of claim 1 or determined from said signal of claim 1.

79. The method of claim 77, wherein at least one of said IAC_j is said signal of claim 8 or is determined from said signal of claim 8.

80. The method of claim 77, wherein at least one of said IAC_j is said rate of change of the amount of said signal of claim 18 or is determined from said rate of change of the amount of said signal of claim 18.

81. The method of claim 77, wherein at least one of said IAC_j is said absolute amount of said signal of claim 18 or is determined from said absolute amount of said signal of claim 18.

82. The method of claim 77, wherein at least one of said IAC_j is said signal of claim 29 or is determined from said signal of claim 29.

83. A computer programmable medium embodying a program of instructions for causing a processor to perform a method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each said IAC_j in an assay device;

(b) determining a function of each said IAC_j;

(c) determining a sum of the integer 1 and each said function; and

(d) determining a quotient between T_m and said sum.

84. In an apparatus, a method for determining a corrected assay result (T_c) from a measured assay result (T_m) and multiple (j) measured control assay results (IAC_j), comprising the steps of:

(a) measuring said T_m and each said IAC_j in an assay device;

(b) determining a function of each said IAC_j;

(c) determining a sum of the integer 1 and each said function; and

(d) determining a quotient between T_m and said sum.

85. A method for determining a corrected assay result (T_c) from a measured assay result (T_m) and a measured independent assay control result (IAC), comprising the steps of:

(a) measuring said T_m and said IAC in an assay device;

(b) determining a quotient between a mean value (IAC_{ave}) of multiple IAC measurements (IAC_i) and said IAC; and

(c) determining a product by multiplying said quotient of step (b) by said T_m .

86. The method of claim 85, wherein said IAC is said signal of claim 1 or determined from said signal of claim 1.

87. The method of claim 85, wherein said IAC is said signal of claim 8 or is determined from said signal of claim 8.

88. The method of claim 85, wherein said IAC is said rate of change of the amount of said signal of claim 18 or is determined from said rate of change of the amount of said signal of claim 18.

89. The method of claim 85, wherein said IAC is said absolute amount of said signal of claim 18 or is determined from said absolute amount of said signal of claim 18.

90. The method of claim 85, wherein said IAC is said signal of claim 29 or is determined from said signal of claim 29.

91. A computer programmable medium embodying a program of instructions for causing a processor to perform a method for determining a corrected assay result from a measured assay result (T_m) and a measured independent assay control result (IAC), comprising the steps of:

(a) measuring said T_m and said IAC in an assay device;

(b) determining a quotient between a mean value (IAC_{ave}) of multiple IAC measurements (IAC_i) and said IAC; and

(c) determining a product by multiplying said quotient of step (b) by said T_m.

92. In an apparatus, a method for determining a corrected assay result from a measured assay result (T_m) and a measured independent assay control result (IAC), comprising the steps of:

(a) measuring said T_m and said IAC in an assay device;

(b) determining a quotient between a mean value (IAC_{ave}) of multiple IAC measurements (IAC_i) and said IAC; and

(c) determining a product by multiplying said quotient of step (b) by said T_m.

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